Annex F

(informative)

Graphics of Syntax for ISO/IEC 13818

F.0   Introduction

This part of the standard is an informative annex presenting graphically the ISO/IEC 13818 Transport Stream and Program Stream syntax . This part in no way replaces the preceeding normative section.

In order to produce clear drawings, not all fields have been fully described or represented. Reserved fields may be omitted or signaled by hatched lines. Fields length are indicated in bits.
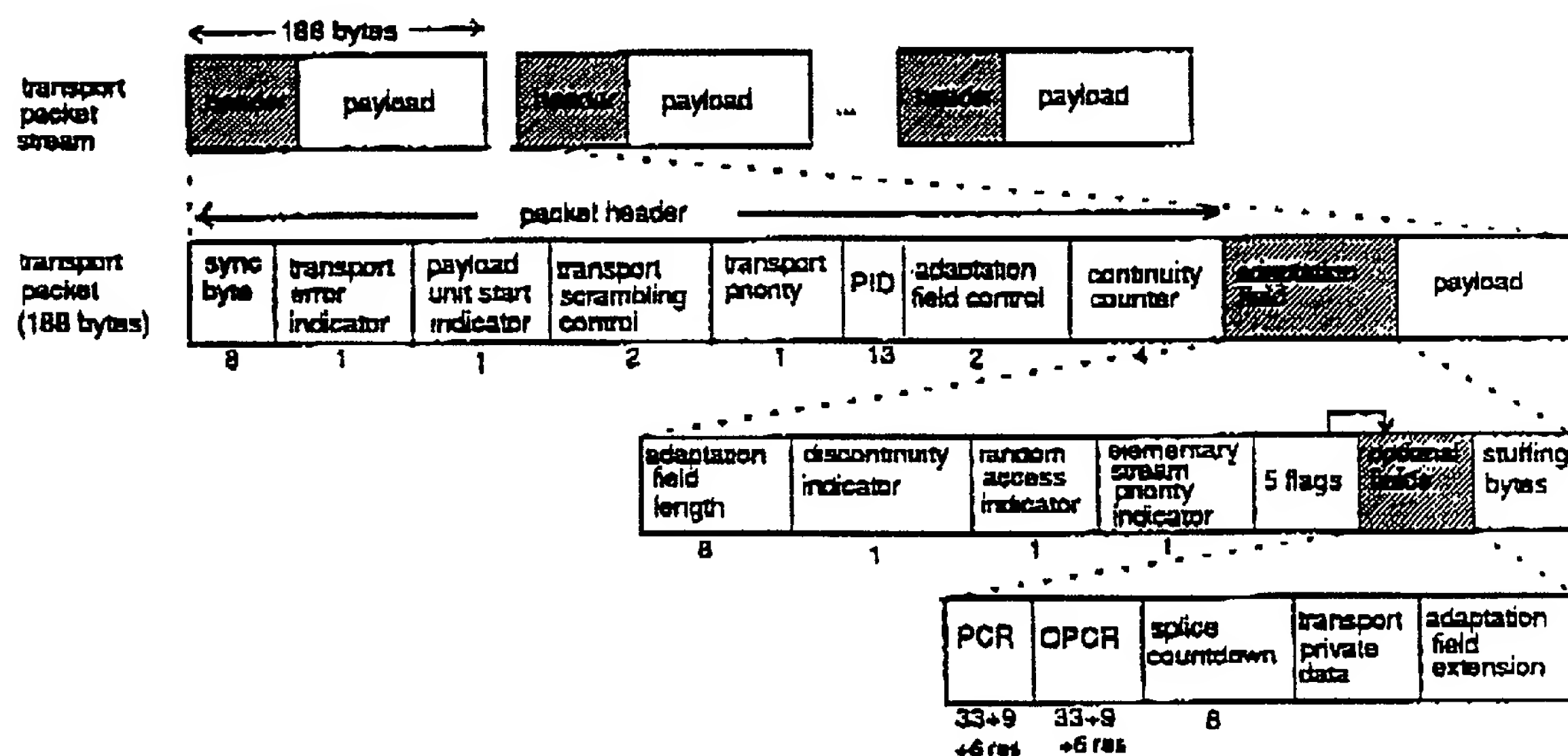
F.0.5   Transport Stream syntax

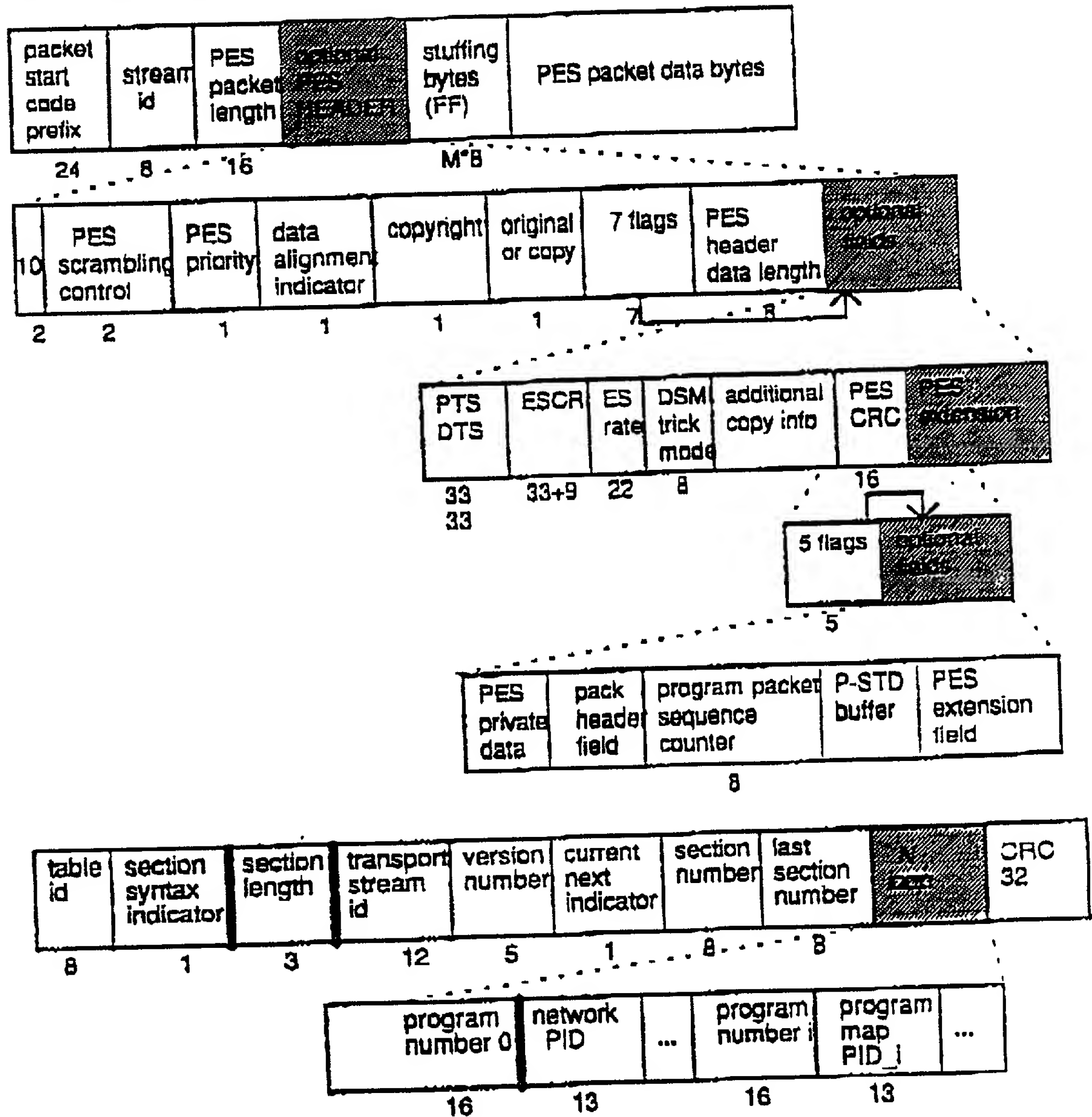Figure F-1 — Transport Stream syntax diagram

F.0.6 PES packet

packet start code prefix	stream id	PES packet length	optional PES HEADER	stuffing bytes (FF)	PES packet data bytes

24	8	16		M*8

10	PES scrambling control	PES priority	data alignment indicator	copyright	original or copy	7 flags	PES header data length	optional fields

2	2	1	1	1	1	7	8

PTS DTS	ESCR	ES rate	DSM trick mode	additional copy info	PES CRC	PES extension

33 33	33+9	22	8		16

5 flags	optional fields

5

PES private data	pack header field	program packet sequence counter	P-STD buffer	PES extension field

8

table id	section syntax indicator	section length	transport stream id	version number	current next indicator	section number	last section number	N loop descriptors	CRC 32

8	1	3	12	5	1	8	8

program number 0	network PID	...	program number i	program map PID_i	...

16	13	16	13

Figure F-2 — PES packet syntax diagram

F.0.7 CA section

table id	section syntax indicator	section length	version number	current next indicator	section number	last section number	N loop descriptors	CRC 32

8	1	3	5	1	8	8
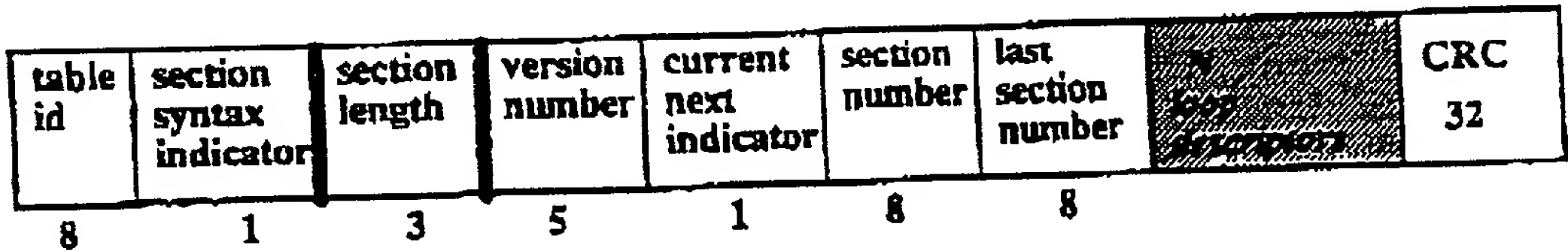
Figure F-3 — Conditional access section diagram

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F.0.8   TS program map section

table id	section syntax indicator	section length	program number	version number	current next indicator	section number	last section number	PCR PID	program info length	N loop descriptors		CRC 32
8	1	3	16	5	1	8	8	13	12			

stream type	elementary PID	ES info length	N loop descriptors
8	13	12	
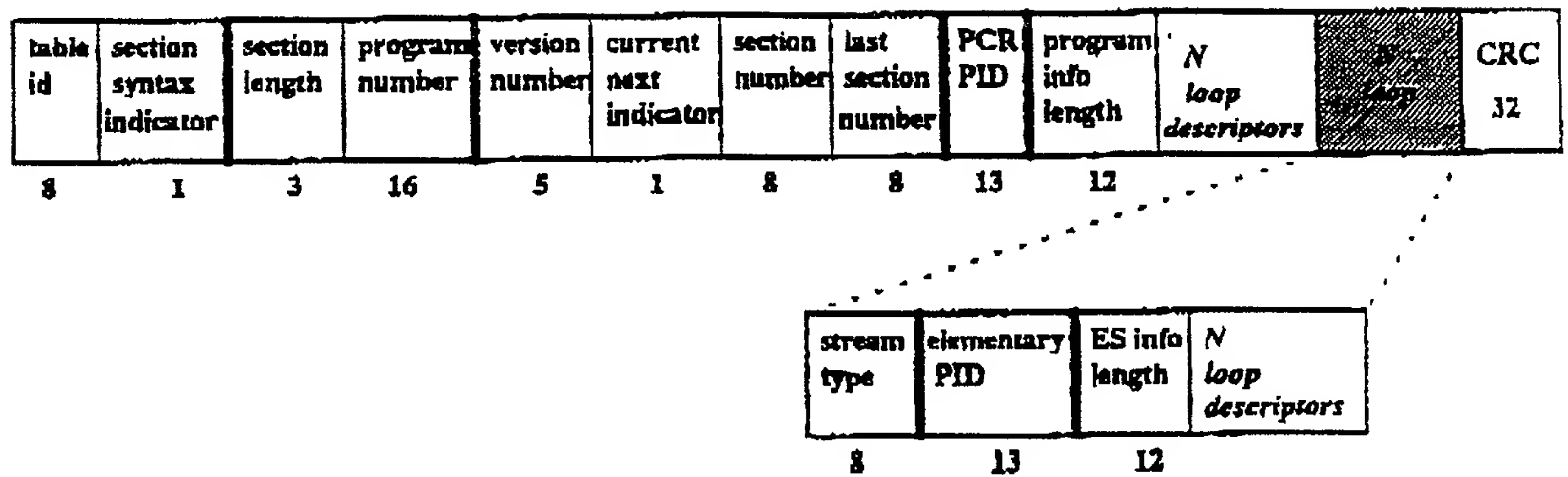
Figure F-4 — TS program map section diagram

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F.0.9   Private section

table id	section syntax indicator	private section length	
8	1	12	

'0'

'1'

private data bytes

table id extension	version number	current next indicator	section number	last section number	N private data	CRC 32
16	5	1	8	8		
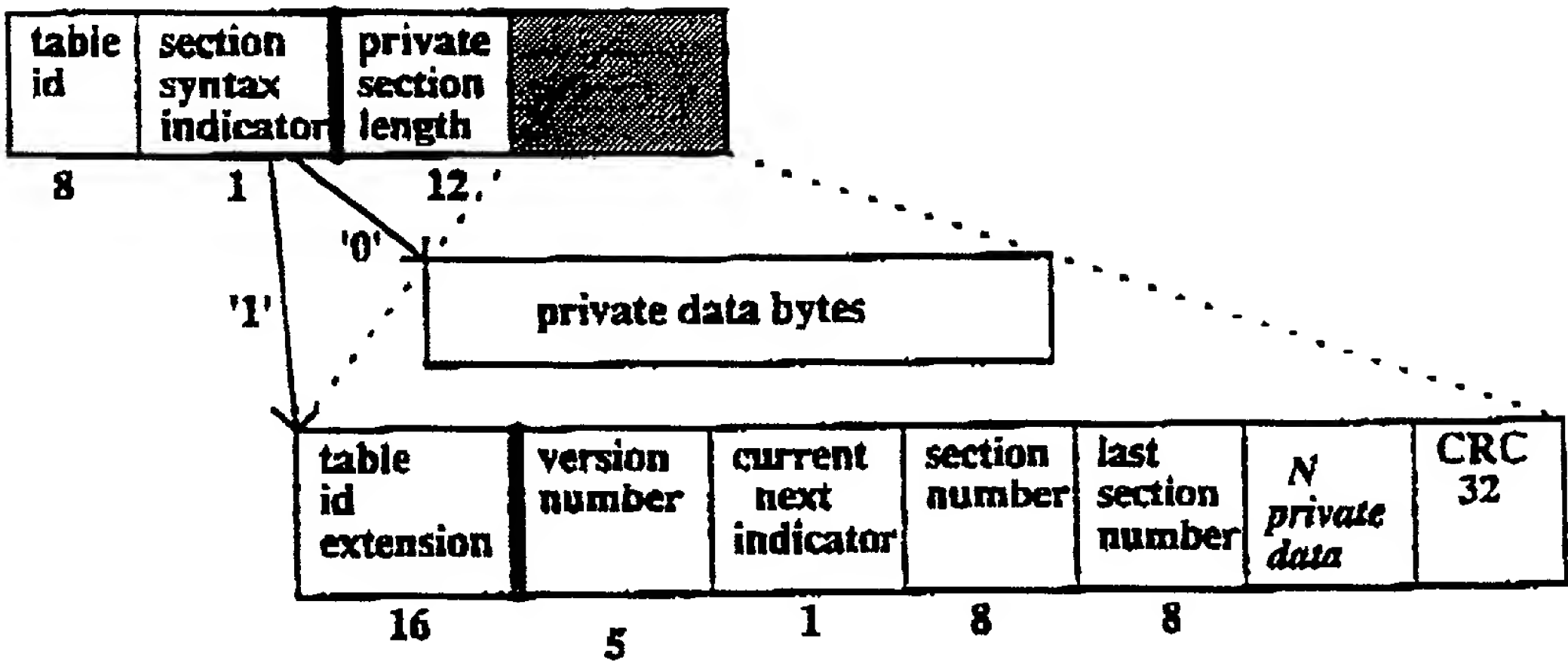
PID0 : PROGRAM ASSOCIATION TABLE
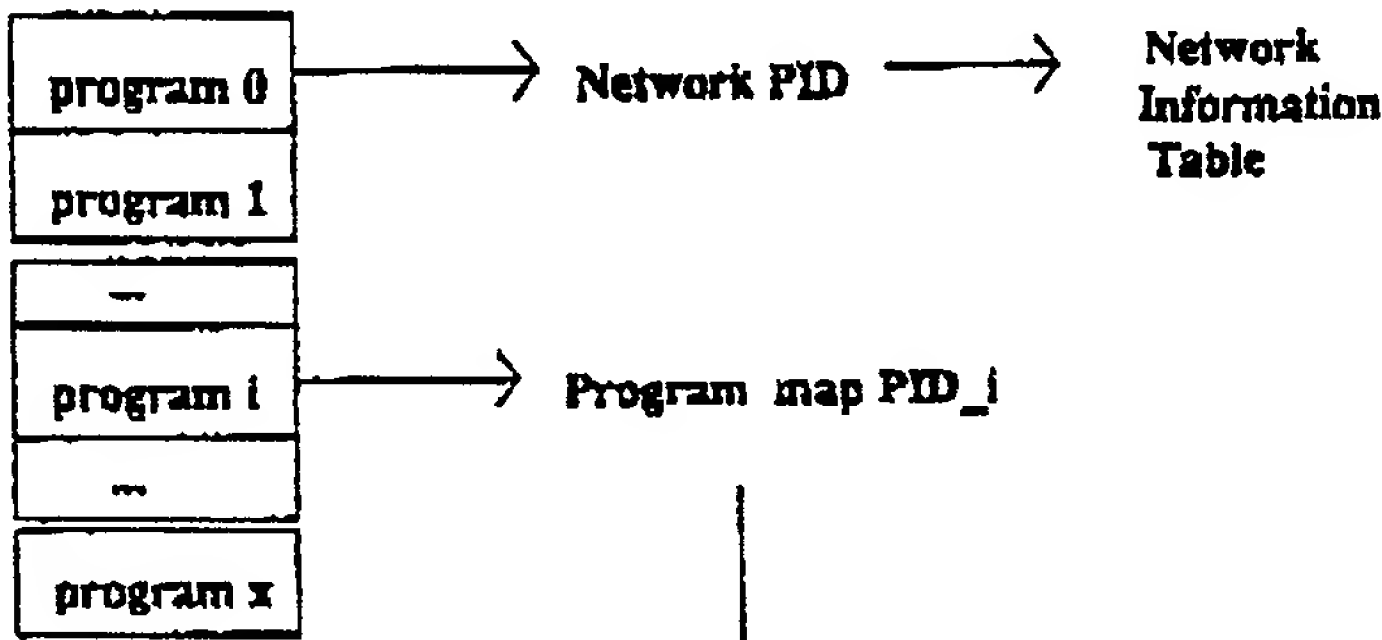
PID1 : CONDITIONAL ACCESS TABLE

program 0
program 1
---
program i
---
program x

Network PID → Network Information Table

Program map PID_i

descriptor 1 descriptor 2
---
descriptor j

...
descriptor m

CA system id

CA PID

private info

TS PROGRAM MAP TABLE

program k section 0
---
program i section 0
---
program n last section 0

PID_k   TS PROGRAM MAP SECTION

PID_i

PID_n

program i section 0
PCR PID
N program descriptors
ES 1

ES n
---

stream type
elementary PID
N descriptors
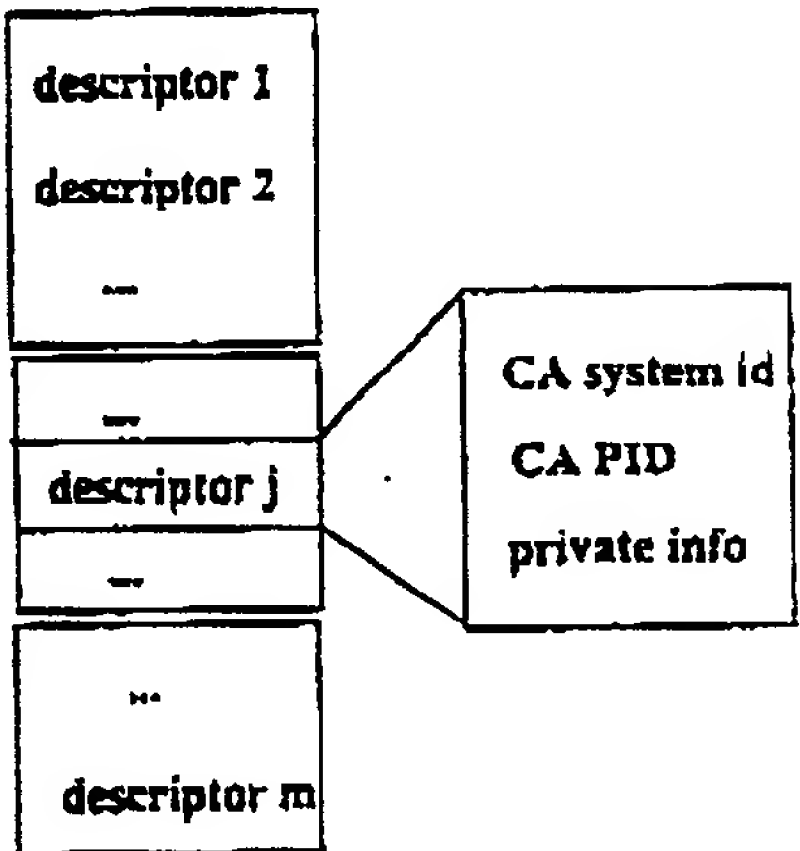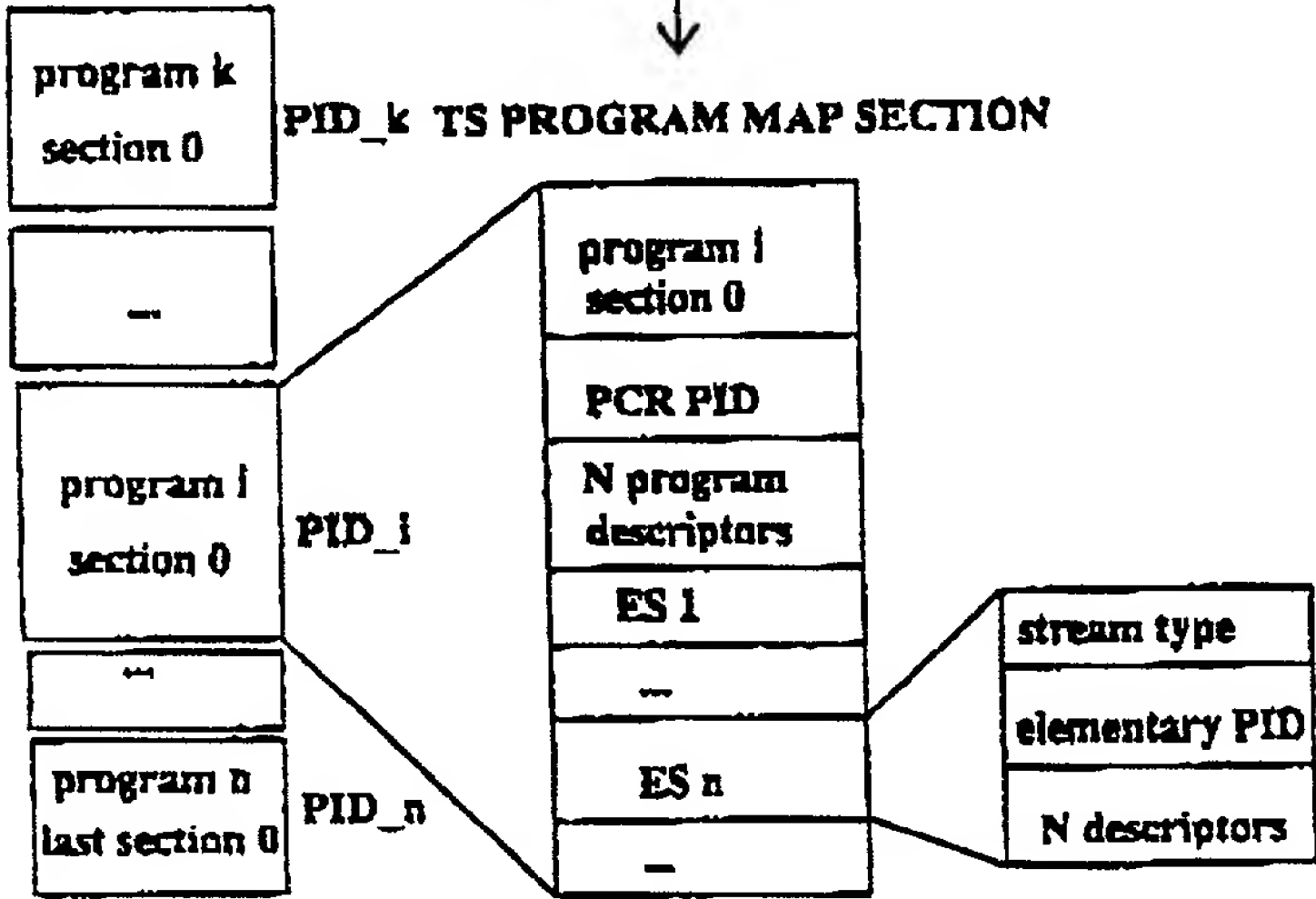
Figure F-5 -- Private section diagram

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F.0.10 Program Stream

MPEG2 program stream	MPEG header	pack 1		MPEG header	pack 2	...	MPEG header	pack n		MPEG program end code

pack layer	pack start code	01	SCR	program mux rate	system header	PES packet 1	...	PES packet i	...	PES packet n

system header start code	header length	rate bound	audio bound	flags					video band	N loop
				fixed	CSPS	audio lock	video lock			

stream id	11	P_STD buffer bound scale	P_STD buffer size bound	....		....		

Figure F-6 — Program Stream diagram

F.0.11 Program Stream map

packet startcode prefix	map stream id	program stream map length	current next indicator	program stream map version	extended program stream info length	N descriptors	elementary stream map length	N loops	CRC 32
24	8	16	1	5	7	16	16		

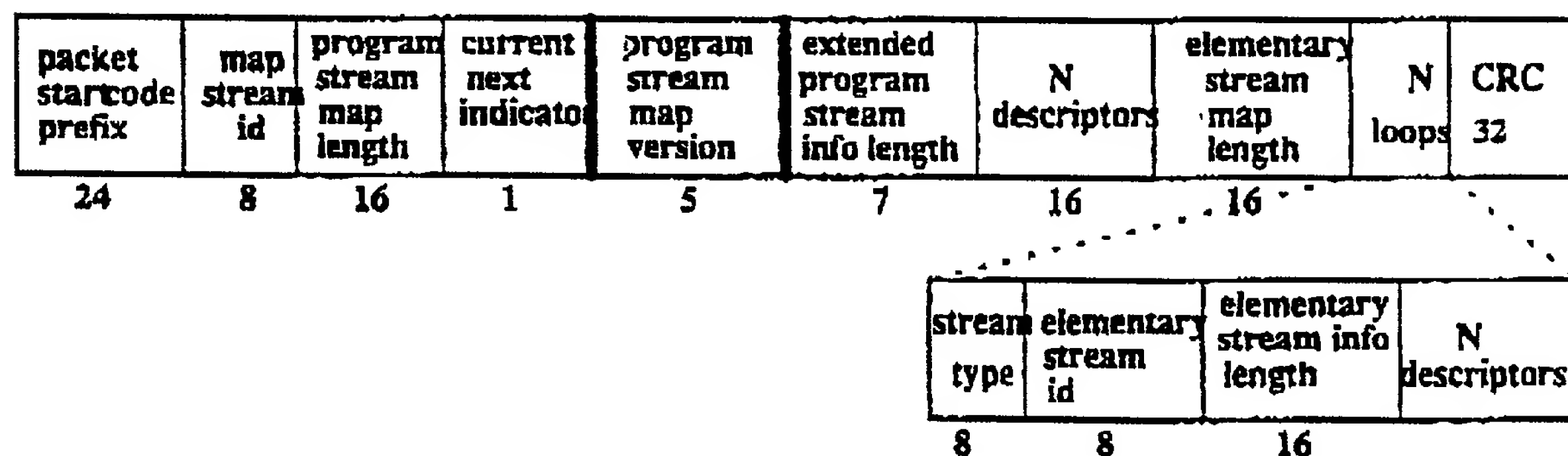| stream type	elementary stream id	elementary stream info length	N descriptors
8	8	16	

Figure F-7 — Program Stream map diagram

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